## DNREC's Brandywine Zoo wins international avian husbandry award

Delaware's zoo also recognized nationally for data collection

WILMINGTON — DNREC's Brandywine Zoo has won a Plume Award from the Association of Zoos and Aquariums' (AZA) Avian Scientific Advisory Group, recognizing the zoo's achievements in avian husbandry and conservation. The Brandywine Zoo is one of only three AZA-member facilities internationally to receive the prestigious award this year. The Plume Award was for the zoo's American Kestrel Monitoring Program, recognized by the AZA as a "Noteworthy Achievement for an Avian In-Situ Program" — meaning "in the field," or studying animals in the wild.

"We have always known that the Brandywine Zoo is an exceptional facility, and this international recognition with the Plume Award attests to the zoo's standing," said DNREC Secretary Shawn M. Garvin. "This award recognizes the conservation work the zoo does outside the facility, not just the valuable information it collects from the animals under its care. The zoo's American Kestrel Monitoring Program is contributing to international studies and larger, collaborative research projects, so data collected here in Delaware will ultimately help the recovery of North America's smallest raptor."

The American kestrel was listed as endangered in Delaware in 2013. Since 2014, the zoo, with the assistance of DNREC's Divisions of Fish & Wildlife and Parks & Recreation, has installed 74 nest boxes on both private and public lands across the state from parks to state wildlife and conservation areas. The zoo spearheads the Delaware Kestrel Partnership (DKP), a group of organizations within the state working to

better understand causes of the kestrel's decline in Delaware. The DKP is made up of the Brandywine Zoo and DNREC's Divisions of Fish & Wildlife and Parks & Recreation, Delaware Nature Society, Delmarva Ornithological Society, Tri-State Bird Rescue and Research, Delaware Wildlands, and the American Kestrel Partnership, a project of The Peregrine Fund.

The kestrel monitoring project is the first in-situ project run by the zoo, providing zoo staff valuable opportunities to contribute to national research projects while also directly studying a locally-endangered species. Research focuses on where and why kestrels are nesting in the state, to help inform long-term conservation and habitat decisions. Zoo staff and volunteers monitor nest boxes for activity, and band adults and chicks with U.S. Geological Survey-numbered leg bands for identification. Feather samples collected from chicks are submitted to the American Kestrel Genoscape Project, which is creating a DNA map of kestrels across North America, to better assess where migrating adults from other studies may come from. As the cause of the kestrel's decline is still unknown, banding and feather sampling are just two ways of understanding where kestrels are going, whether they return to the same areas for nesting annually, and how the species' dispersal may impact the raptors' long-term survival.

Other data collected by the Brandywine Zoo has recently been recognized nationally as well. Zoo data, in collaboration with other zoos and aquariums worldwide, was used in a paper published recently in the journal, *Proceedings of the National Academy of Sciences of the United States of America*, the official journal of the National Academy of Sciences. The information helped confirm critical information, such as fertility and survival rates, that has been missing from global data for more than 98 percent of known species of mammals, birds, reptiles, and amphibians. Information from the zoo has helped fill in the gap that has far-reaching

implications for conservationists seeking to blunt the impact of mass extinctions, according to the journal article. The zoo has been contributing data on its animals since 1981. Since then, it has added data on more than 1,200 birds, reptiles, amphibians and mammals of 219 species, making a large impact on the understanding of those species' life histories.

About the Association of Zoos and Aquariums: The AZA, founded in 1924, is a non-profit organization dedicated to the advancement of zoos and aquariums in the areas of conservation, animal welfare, education, science, and recreation. AZA is the accrediting body for the top zoos and aquariums in the U.S. and 10 other countries.

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